



# Cross Docking: Bypassing Storage

Characteristics of Effective Cross Docking |  
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Customers expect products when they are ordered—on-demand, with an unprecedented level of compliance. To be competitive, companies must focus on moving product in and out of the warehouse in the most cost-effective, efficient and timely manner possible, while providing the services customers demand. Distribution needs to be positioned as a frontline business strategy. For many, cross docking can be a valuable part of this strategy.

Cross docking—the process of moving material from the receiving dock to the shipping dock, bypassing storage—is a simple concept that is perhaps as long standing as warehousing itself.

Cross docking reduces inventory carrying costs, transportation costs and costs associated with order fulfillment and material handling. Holding inventory, moving it, counting it, picking it and sometimes losing it, costs money. While not a solution for everyone, such as those with strict FIFO requirements, cross docking can lead to significant benefits. It must fit the business, and the proper systems and processes must be in place to make it cost effective.



## WHO DOES THE WORK?

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Cross docking involves an inbound shipment to and an outbound shipment from the facility performing the cross dock activity. Who prepares the material for the outbound shipment?

Companies such as retail chains will often negotiate with their vendors to have the vendor prepare the product specifically for cross docking before shipping it to the retailer's distribution center (DC). The vendor may have to label cases for automatic sorting upon arrival at the retailer's DC, or the vendor may be required to sort and palletize cartons for each of the retailer's stores for quick and easy cross docking.

A firm that ships full pallets or floor-loaded trailers with just a few SKUs is dealing with a labeling or possibly an RFID application task. If it must prepare orders for possibly hundreds of stores, it is facing a completely different level of effort—one requiring systems, software and automation to handle work previously done by its customers.

On the other hand, the task of preparing the outbound shipment may be handled by the company cross docking, usually within hours of receipt of the inbound shipment. This involves its own unique set of requirements.

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## CROSS DOCKING REQUIREMENTS

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The proper processes, systems and supply chain relationships must be in place to successfully cross dock on a large scale. With the right combination of these key elements, some distribution centers are able to cross dock more than 70% of their products. These systems include automated material handling, warehouse management systems (WMS), order processing and quality controls systems and strong relationships between supply chain partners.

Automated material handling systems are often crucial for a cross docking operation. An automated cross docking system typically consists of a series of conveyors used for receiving and sorting cases. Barcode scanners read an identification code on each case to track the product through the cross dock system and, based on information from a WMS or order system, the automated system sorts the cases to trucks or to pallets for shipping.

On the software side, business systems may require special functionality to efficiently allocate inbound goods to existing orders, matching supply to demand. Some WMS permit opportunistic cross docking functionality to allocate received product to current demand in real time. And there is little stress on software systems when buyers predetermine distribution for special purchases or seasonal items.

Stringent, yet agile quality control (QC) operations are increasingly important as the volume of cross dock business increases, especially when handling new suppliers. Good QC is essential to avoid delays, bottlenecks or the costs associated with shipping inferior product.

It's essential that supply chain partners develop close relationships and work as a team for a cross docking operation to be successful. The inability to establish a good working relationship can lead to failure in these endeavors. The sharing of information, clear communication, confidence in the quality and conformance of goods and product availability are just a few characteristics that produce effective cross docking.


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## A REAL-WORLD EXAMPLE

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### Apparel Supplier Takes Action

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A major North American apparel supplier operates a cross docking operation in one of its distribution facilities. In order to avoid smaller inbound shipments to regional DCs, shipments are brought into the cross dock facility and combined with product from other sources to form full loads for shipment to the regional DCs. This arrangement, while adding very little time to the supply cycle, provides transportation savings and a centralized quality control operation with inherent benefits.

The facility utilizes an automated material handling system that interfaces with a host software system. Cartons are placed on truck unloading conveyors at the receiving dock and scanned by online scanners as they enter the processing system. The host system is notified of each scan and determines the disposition of each carton. Typically a sample of each SKU is routed to quality inspection while the balance routes to holding. Upon passing inspection, the SKU is released. At this time the product

still on the conveyor is sorted for shipment to the various regional facilities, including local stock

Without the cross docking material handling system, the same benefits (transportation savings, quality control, reserve stock, etc.) could be achieved but at a significant increase in labor and handling. The central distribution center would be required to put the receipt away into storage and then, upon release by quality control, manually pick orders for shipment to the other facilities—not a trivial task with the style, color and size mix of the apparel industry.

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## Why FORTE

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### Single-Source Accountability

Whether we're helping you develop a strategic plan, design and build a distribution facility, or optimize a distribution operation through performance metrics and analytics, FORTE provides a true single point of contact responsible for the complete performance of your distribution network. No finger pointing. No fragmentation of responsibility. No multiple suppliers for technical support. You have performance goals, and it's our job to make sure they're met on an ongoing basis.




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### Total Objectivity

We don't manufacture equipment. We don't develop WMS software. We don't have commercial arrangements with any suppliers for expected volumes of business. We're simply interested in delivering the most efficient distribution solutions at the lowest total cost. Our client-side service approach means our only allegiance is to our customers. So with every engagement, you know we'll choose the most appropriate level and blend of technologies integrated into an effective operational system.

## Expertise

Our team is deeply rooted in the hands-on implementation of distribution center design and warehouse automation. FORTE's engineers and technicians integrate today's best practices in supply chain management and distribution center operations while developing next-generation technologies. As a result, our solutions employ the best combination of practical advice, data-driven analysis and technology-enabled systems. With FORTE, you get:

-  More accountability than a consultant
-  More experience than a systems integrator
-  More objectivity than a manufacturer

That's why the world's fastest-growing companies are making distribution their FORTE.

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